

PATENT

Docket No. A5GN2420US



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : GREGORY WAYNE PATTERSON

U.S. Patent No: 6,833,800 B1

Issued : December 21, 2004

Serial No. : 10/665,827

Filed : Sept. 17, 2003 Group Art Unit: 2819

Title: DIFFERENTIAL COMPARATOR SYSTEMS WITH ENHANCED DYNAMIC RANGE

Attn: Certificate of Correction Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Certificate

FEB 24 2005

REQUEST FOR CERTIFICATE OF CORRECTION—OFFICE MISTAKE

Sir:

We have identified the following mistake made by the Office in the above patent:

- Column 8, lines 38-40, Claim 20 is included in the issued patent's claims. However, this claim was to have been cancelled per the August 13, 2004 Examiner's Amendment, a copy of which is enclosed.

Form PTO/SB/44 is enclosed.

A Certificate of Correction is respectfully requested.

Respectfully submitted,

Richard S. Koppel  
Registration No. 26,475  
Attorney for Applicant

KOPPEL, JACOBS, PATRICK & HEYBL  
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Thousand Oaks, California 91360  
(805) 373-0060

U:\WD1\ANALOG\A5GN2420US Certificate of Correction

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Attn: Certificate of Correction Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

February 11, 2005  
Date

Jennifer Jirkovsky  
Jennifer Jirkovsky

FEB 25 2005

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO. : 6,833,800 B1

DATED : December 21, 2004

INVENTOR(S) : GREGORY WAYNE PATTERSON

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8, lines 38-40, cancel claim 20.

MAILING ADDRESS OF SENDER:

555 St. Charles Dr., Suite 107  
Thousand Oaks, California 91360

PATENT NO.

6,833,800

No. of additional copies



This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

FEB 25 2005



# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,827	09/17/2003	Gregory Wayne Patterson	ASGN2420US	6025
7590	08/13/2004			
			EXAMINER	
			LAUTURE, JOSEPH J	
			ART UNIT	PAPER NUMBER
			2819	
DATE MAILED: 08/13/2004				



Richard Koppel  
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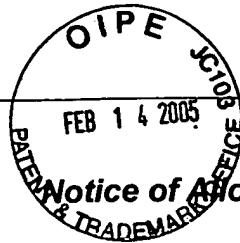
## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



### Notice of Allowability

Application No. 10/665,827 Examiner Joseph Lauture	Applicant(s) PATTERSON, GREGORY WAYNE
	Art Unit 2819

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to correspondence filed 09/17/2003.

2.  The allowed claim(s) is/are 1-20.

3.  The drawings filed on 17 September 2003 are accepted by the Examiner.

4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	6. <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____.
3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date <u>91703</u>	7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment
4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance
	9. <input type="checkbox"/> Other _____.



### Amendments To The Claims

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Richard Koppel on 07/29/2004.

Cancel claim 20.

In claims 2 and 8, lines 2 respectively, replace "a respective one" with --  
respective ones--.

In claims 2 and 8, lines 3-4 respectively, delete "that amplifier's respective  
second end" and insert -- the respective second string ends driven by said  
amplifier--.

In claims 3 and 9, lines 3 respectively, after "and", insert -- said --.

In claims 6 and 12, lines 2 respectively, delete ";" and insert --: --.

In claims 6 and 12, lines 4 respectively, delete "and" and insert -- said first input  
comprising--.

In claims 6 and 12, lines 5-6 respectively, delete "that provide said first input  
terminals and".

In claim 13, line 14, delete "and alters it in response", and insert -- in the absence  
of said out-of-range signal, and in response to the presence of said out-of-range signal,  
provides said feedback signal as an overdrive protection signal for said amplifier--.

**Amendment To The Specification**

On page 3, line 9; and on page 7, line 11: replace "the invention" with --one embodiment of the invention--.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: the prior arts of record fail to teach an analog-to-digital converter, comprising: first and second strings each formed with at least one impedance element; at least one current source coupled to a first end of at least one of said first and second strings; at least one comparator coupled to provide a comparator output signal in response to signals at first and second string taps that are respectively positioned along said first and second strings; first and second differential amplifiers that have first input terminals which together define a differential input port, that have second input terminals that are each coupled through a respective feedback path to a feedback tap positioned between the first and second ends of a respective one of said first and second strings, and that are each coupled to drive a second end of a respective one of said first and second strings; and a decoder coupled to provide an output digital code in response to said comparator output signal..

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

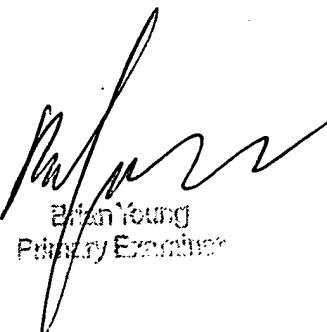
#### CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Lauture, whose telephone number is (571) 272-1805. The examiner can normally be reached Monday thru Friday between 9:30 am and 6:00 PM.

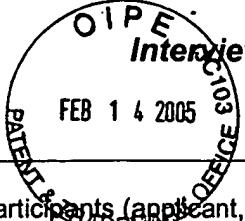
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached at (571) 272-1812. The fax number for the organization to which this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571) 272-1562.

Joseph Lauture  
Group: 2819  
Date: 07/28/2004



Brian Young  
Primary Examiner

	Application No.	Applicant(s)
	10/665,827	PATTERSON, GREGORY WAYNE
	Examiner Joseph Lauture	Art Unit 2819

All participants (applicant, applicant's representative, PTO personnel):

(1) Joseph Lauture. (3) \_\_\_\_\_.

(2) Richard Koppel. (4) \_\_\_\_\_.

Date of Interview: 29 July 2004.

Type: a) Telephonic b) Video Conference  
c) Personal [copy given to: 1) applicant 2) applicant's representative]

Exhibit shown or demonstration conducted: d) Yes e) No.  
If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 1-3,6,8,9,12,14,17 and 20.

Identification of prior art discussed: \_\_\_\_\_.

Agreement with respect to the claims f) was reached. g) was not reached. h) N/A.

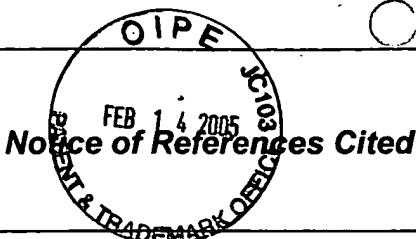
Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant's Representative agreed to amend above-mentioned claims to put the application in better condition for allowance.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
Examiner's signature, if required



Application/Control No.	Applicant(s)/Patent Under Reexamination	
10/665,827	PATTERSON, GREGORY WAYNE	
Examiner	Art Unit	
Joseph Lauture	2819	Page 1 of 1

#### U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,407,692	06-2002	Bult et al.	341/159
	B	US-6,650,267	11-2003	Bult et al.	341/155
	C	US-5,539,406	07-1996	Kouno et al.	341/155
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

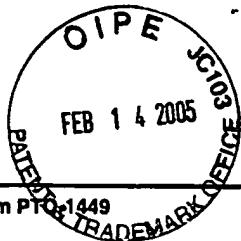
#### FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

#### NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



Sheet 1 of 1

Form PTO-1449

INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Optional)

A5GN2420US

Application Number

10665827

Applicant

Patterson, Gregory Wayne

Filing Date

Group Art Unit

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5 2 3 1 3 9 9	7/27/93	Gorman, et al.	341	159	
	5 5 8 9 8 3 1	12/31/96	Knee	341	159	
	5 7 0 6 0 0 8	1/6/98	Huntley, et al.	341	156	
	5 9 9 0 8 1 4	11/23/99	Cromam, et al.	341	118	
	6 0 1 4 0 9 7	1/11/00	Brandt	341	156	
	6 4 5 2 5 1 9	9/17/02	Swanson	341	120	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Petschacher, Reinhard, et al. "A 10b, 75MSPS Subranging A/D Converter with Integrated Sample and Hold", IEEE Journal of Solid-State Physics, Vol. 25, No. 6, December, 1990
	Waltari, Mikko, et al. "reference Voltage Drive for Low Voltage CMOS A/D Converters", IEEE International Conference on Electronics, Circuits and Systems, Vol. 1, No. 6, 2001

EXAMINER	DATE CONSIDERED
<i>John Pauline</i>	07/27/2004

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP§609; Draw line through